

IN THE CLAIMS:

Please amend claim 1 as set forth below:

Sub B1
Claim 1 (Amended)

A1
A primer-specific and mispair extension assay for determining genotype, said assay comprising:

- a) extending a nucleic acid sequence from a patient sample with *pfu* DNA polymerase, using a primer specific for a genotype to be determined, and an incomplete set of dNTPs in the absence of ddNTPs, under suitable conditions for obtaining extension products of the primer, wherein at least one of the primer or the dNTPs is labeled;
- b) characterizing the extension products; and
- c) analyzing the characterized extension products based on primer specific pairing and mispairing to determine the genotype of the nucleic acid sequence extended.

Please add the following new claims 13, 14, and 15 as set forth below:

Sub B2
Claim 13 (New)

A2
A primer-specific and mispair extension assay for determining genotype, said assay comprising:

- a) extending a nucleic acid sequence from a patient sample with *pfu* DNA polymerase, using a primer specific for a genotype to be determined, and an incomplete set of dNTPs in the absence of ddNTPs, under suitable conditions for obtaining specific pair and non-specific mispair extension products of the primer, wherein at least one of the primer or the dNTPs is labeled;
- b) separating the extension products obtained;
- c) characterizing the extension products; and

- 37
- d) analyzing the extension products based on primer specific pair and mispair extension to determine a genotype of the nucleic acid sequence.

a2
concl
SUB
D2

Claim 14 (New)

An assay as claimed in claim 13, wherein genotype determination is based on a genotype specific primer pair and mispair extension analysis

Claim 15 (New)

An assay as claimed in claim 13, wherein the genotype specific primer extension analysis is based on the termination of primer extension by mispair(s) and primer specific pair and mispair extension on a template.

IN THE SPECIFICATION:

Responsive to the Office Action mailed November 16, 2002, Applicant submits a substitute specification excluding the claims and abstract. Please enter the substitute specification in clean form and including paragraph numbers [0001] through [0103] attached hereto as Appendix A. A marked-up substitute specification identifying additional amendments to the specification as required by 37 C.F.R. § 1.121(b)(3)(iii) is attached hereto as Appendix B. It is respectfully submitted that the substitute specification does not introduce new matter into the above-referenced patent application.